

US EPA ARCHIVE DOCUMENT

RCRA REVISION CHECKLIST 206  
Nonwastewaters from Dyes and Pigments  
70 FR 9138 – 9180  
February 24, 2005  
(RCRA Cluster XV, HSWA)

As amended on June 16, 2005 at 70 FR 35032

- 1) A correction was made to this rule at 70 FR 35032 (June 16, 2005). The sections affected are: 40 CFR 261.32(d)(2) and 261.32(d)(3)(iv)(B). States are encouraged to adopt the correction at the same time that the February 24, 2005 provisions are adopted. Those states that will incorporate the July 1, 2005 Code of Federal Regulations by reference, should include language that references or otherwise includes the correction published in the Federal Register on June 16, 2005 to ensure accuracy of regulations.
- 2) States are encouraged to adopt these provisions and begin implementing them while seeking authorization.

Name of State:

State Statutory Authority:

Title of Regulations: \_\_\_\_\_ Effective Date:

Date Checklist Completed:

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
			EQUIV- ALENT	LESS STRIN- GENT	MORE STRIN- GENT	BROADER IN SCOPE
PART 261 – IDENTIFICATION AND LISTING OF HAZARDOUS WASTE						
SUBPART A -- GENERAL						
EXCLUSIONS						
revise paragraph (b)(15) to read as follows:	261.4					
Leachate or gas condensate from landfills where certain solid wastes are disposed provided that:	261.4(b)(15)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
(Cont'd)**

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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Solid wastes would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178, and K181 if these wastes had been generated after the effective date of the listing;	261.4(b)(15)(i)					
Solid wastes in (b)(15)(i) were disposed prior to the effective date of listing;	261.4(b)(15)(ii)					
The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any listed hazardous waste;	261.4(b)(15)(iii)					
Discharge of the leachate or gas condensate, including that transferred from the landfill to a POTW, is subject to regulation under section 307(b) or 402 of the Clean Water Act.	261.4(b)(15)(iv)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
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FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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As of February 13, 2001, leachate or gas condensate derived from K169 – K172 is no longer exempt if managed in surface impoundment prior to discharge. As of November 21, 2003, leachate or gas condensate from K176, K177, and K178 is no longer exempt if managed in surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate from K181 will no longer be exempt if managed in surface impoundment prior to discharge. One exception: if surface impoundment is used temporarily in an emergency, provided impoundment has a double liner, and the leachate or gas condensate is managed in compliance w/ b(15)(v) after emergency ends.	261.4(b)(15)(v)					

**SUBPART D – LISTS OF HAZARDOUS WASTES**

**HAZARDOUS WASTES FROM SPECIFIC SOURCES**

amended by designating the existing text and table as (a); adding a new entry under the heading “Organic Chemicals” in the table; and adding paragraphs (b), (c), and (d) to read as follows:	261.32					
261.32(a) reads as follows:	261.32(a)					
Industry and EPA hazardous waste No.	Hazardous waste					Hazard code

\* \* \* \* \*

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
(Cont'd)**

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
			EQUIV- ALENT	LESS STRIN- GENT	MORE STRIN- GENT	BROADER IN SCOPE
Organic Chemicals						
*	*	*	*	*	*	*
K181.....	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of this section that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Subtitle D landfill unit subject to the design criteria in 258.40, (ii) disposed in a Subtitle C landfill unit subject to either 264.301 or 265.301, (iii) disposed in other Subtitle D landfill units that meet the design criteria in 258.40, 264.301, or 265.301, or (iv) treated in a combustion unit that is permitted under Subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility’s nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under 216.21-261.24 and 261.31-261.33. at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.					(T)
*	*	*	*	*	*	*
Listing of Specific Definitions: (1) For the purposes of the K181 listing, dyes and/or pigments production is defined to include manufacture of the following classes: dyes, pigments, FDA certified colors classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, bensidine and pyrazolone. Triarylmethane products include triphenylmethane products too. Wastes not generated at dyes and/or pigments manufacturing site are not included in the listing.	261.32(b)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments**  
(Cont'd)

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
			EQUIV- ALENT	LESS STRIN- GENT	MORE STRIN- GENT	BROADER IN SCOPE
K181 Listing Levels. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels in a calendar year are subject to K181 listing, unless certain conditions are met.	261.32(c)					
Constituent	Chemical abstracts No.	Mass levels (kg/yr)				
Aniline.....	62-53-3	9,300				
o-Anisidine.....	90-04-0	110				
4-Chloroaniline.....	106-47-8	4,800				
p-Cresidine.....	120-71-8	660				
2,4-Dimethylaniline.....	95-68-1	100				
1,2-Phenylenediamine	95-54-5	710				
1,3-Phenylenediamine	108-45-2	1,200				
Procedures for demonstrating that dyes and/or pigment nonwastewaters are not K181. The procedures described in (d)(1)-(d)(3) and (d)(5) establish when nonwastewaters are not hazardous. If the nonwastewaters are disposed in landfill units or treated in combustion units, then they are not hazardous. Generator must maintain documentation described in (d)(4).	261.32(d)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
(Cont'd)**

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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Determination based on no K181 constituents. Generators that have knowledge that their wastes contain no K181 constituents can use this to make determination. Generator must document annually and keep these for three years.	261.32(d)(1)					
Determination for generated quantities of 1,000 MT/yr or less of wastes that contain K181 constituents. If the total annual quantity of dyes/pigments is 1,000 MT or less, the generator can use knowledge of the wastes to conclude that annual mass loadings are below the listing levels of paragraph (c). The generator must:	261.32(d)(2)					
Each year document the basis for determining the annual quantity will be less than 1,000 MT	261.32(d)(2)(i)					
Track the actual quantity of nonwastewaters from Jan. 1 – Dec. 31 of each year. If the actual quantity exceeds 1,000 MT, the generator must comply w/ paragraph (d)(3) for remainder of year.	261.32(d)(2)(ii)					
Keep a running total of K181 constituent mass loadings over the calendar year.	261.32(d)(2)(iii)					
Keep the following records on site for the three most recent years:	261.32(d)(2)(iv)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
(Cont'd)**

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
			EQUIV- ALENT	LESS STRIN- GENT	MORE STRIN- GENT	BROADER IN SCOPE
Quantity of dyes/pigment nonwastewaters generated.	261.32(d)(2)(iv)(A)					
Process information used	261.32(d)(2)(iv)(B)					
Calculations used to determine annual total mass loadings for each K181 constituent.	261.32(d)(2)(iv)(C)					
Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents. If the total annual quantity of dyes/pigments nonwastewaters is greater than 1,000 MT the generator must comply w/ (d)(3)(i) – (d)(3)(xi) in order to make determination that waste is not K181.	261.32(d)(3)					
Determine which K181 constituents are expected to be present.	261.32(d)(3)(i)					
If 1,2-phenylenediamine is present, generator can use knowledge or sampling to determine level of constituent in wastes. For determinations based on knowledge, generator must comply w/ (d)(2) and keep records described in (d)(2)(iv). For sampling based determinations, generator must comply w/ requirements described below.	261.32(d)(3)(ii)					
Develop a sampling plan. At a minimum, the plan must include:	261.32(d)(3)(iii)					



**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
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FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
			EQUIV- ALENT	LESS STRIN- GENT	MORE STRIN- GENT	BROADER IN SCOPE
Discussion of number of samples needed;	261.32(d)(3)(iii)(A)					
Sample collection method;	261.32(d)(3)(iii)(B)					
Discussion of how sampling accounts for temporal and spatial variability.	261.32(d)(3)(iii)(C)					
Description of the test methods.	261.32(d)(3)(iii)(D)					
Collect and analyze samples.	261.32(d)(3)(iv)					
Sampling and analysis must be precise, unbiased and representative of wastes.	261.32(d)(3)(iv)(A)					
Measurements must be sensitive, accurate, and precise.	261.32(d)(3)(iv)(B)					
Record analytical results.	261.32(d)(3)(v)					
Record the waste quantity.	261.32(d)(3)(vi)					
Calculate constituent-specific mass loadings.	261.32(d)(3)(vii)					
Keep total of K181 mass loadings over calendar year.	261.32(d)(3)(viii)					
Determine whether the mass of any K181 constituent generated over the year is below the listing levels.	261.32(d)(3)(ix)					
Keep the following records on site for the three most recent years:	261.32(d)(3)(x)					
Sampling and analysis plan.	261.32(d)(3)(x)(A)					
Sampling and analysis results.	261.32(d)(3)(x)(B)					
Quantity of dyes/pigment nonwastewaters generated.	261.32(d)(3)(x)(C)					
Calculations performed to determine annual mass loadings.	261.32(d)(3)(x)(D)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
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Nonhazardous waste determinations must be conducted annually to verify they remain nonhazardous.	261.32(d)(3)(xi)					
Annual testing is suspended after three consecutive annual demonstrations wastes are nonhazardous.	261.32(d)(3)(xi)(A)					
Annual testing requirements are reinstated if the manufacturing or waste treatment processes are altered.	261.32(d)(3)(xi)(B)					
If testing requirements are suspended, the generator must keep records of the process knowledge used to support nonhazardous determination. If testing is reinstated, a description of process change must be reinstated.	261.32(d)(3)(xi)(C)					
Recordkeeping for the landfill disposal and combustion exemptions. The generator must maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets design standards in the listing description, or was treated in combustion units in listing description.	261.32(d)(4)					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
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FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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Waste holding and handling. The generator is responsible for storing wastes appropriately. If wastes are hazardous and generator has not complied w/ Subtitle C requirements, the generator could be subject to an enforcement action.	261.32(d)(5)					
add the following entries in alphanumeric order to read as follows:	261 Appendix VII					
EPA hazardous waste No.	Hazardous constituents for which listed					
*	*	*	*			
K181.....	Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, 1,3-phenylenediamine.					
*	*	*	*			
add the following entries in alphabetical order to read as follows:	261 Appendix VIII					
Common name	Chemical abstracts name	Chemical abstracts No.	Hazardous waste No.			
*	*	*	*	*		*
o-Anisidine (2-methoxyaniline).....	Benzenamine, 2-Methoxy-.....	90-04-0	.....			
*	*	*	*	*		*
p-Cresidine.....	2-Methoxy-5-methylbenzenamine.....	120-71-8	.....			
*	*	*	*	*		*
2,4-Dimethylaniline (2,4-xylidine).....	Benzenamine, 2,4-dimethyl-.....	95-68-1	.....			
*	*	*	*	*		*
1,2-Phenylenediamine.....	1,2-Benzenediamine.....	95-54-5	.....			
*	*	*	*	*		*
1,3-Phenylenediamine.....	1,3-Benzenediamine.....	108-45-2	.....			
*	*	*	*	*		*
PART 268 – LAND DISPOSAL RESTRICTIONS						
SUBPART C – PROHIBITIONS ON LAND DISPOSAL						
WASTE SPECIFIC PROHIBITIONS- DYES AND/OR PIGMENTS PRODUCTION WASTES						

RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
(Cont'd)

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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amended by adding 268.20 and adding and reserving 268.21 through 268.29 to read as follows:	268.20					
Effective August 23, 2005, K181 waste and soil, debris, or radioactive waste mixed with this waste are prohibited from land disposal.	268.20(a)					
The requirements of paragraph (a) of this section do not apply if:	268.20(b)					
The wastes meet the applicable treatment standards specified in subpart D.;	268.20(b)(1)					
Persons have been granted an exemption pursuant to a petition under 268.6;	268.20(b)(2)					
Wastes meet treatment standards pursuant to a petition under 268.44;	268.20(b)(3)					
Hazardous debris has met the treatment standards in 268.40 or in 268.45; or	268.20(b)(4)					
Persons have been granted an extension to the effective date of a prohibition pursuant to 268.5.	268.20(b)(5)					

RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
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FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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To determine whether a hazardous exceeds the treatment standards in 268.40, the initial generator must test a sample of the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of subpart D levels, it is prohibited from land disposal and all requirement of part 268 apply.	268.20(c)					
<b>SUBPART D – TREATMENT STANDARDS</b>						
<b>APPLICABILITY OF TREATMENT STANDARDS</b>						
the Table of Treatment Standards is amended by revising the entry for F039 to add constituents in alphabetical sequence and by adding in alphanumeric order the entry for K181 to read as follows:	268.40/ Treatment Standard Table					

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments**  
(Cont'd)

FEDERAL REQUIREMENTS		FEDERAL RCRA CITATION		ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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TREATMENT STANDARDS FOR HAZARDOUS WASTES								
[Note: NA means not applicable]								
Waste code	Waste description and treatment/regulatory subcategory <sup>1</sup>	Regulated hazardous constituent			Wastewaters Concentration in mg/ L <sup>3</sup> or technology code <sup>4</sup>	Nonwastewater Concentration in mg/kg <sup>5</sup> unless noted as “mg/L TCLP”, or technology code		
		Common name	CAS <sup>2</sup>					
*	*	*	*	*	*	*		
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA hazardous Wastes and no other Hazardous Waste retains its EPA Hazardous Waste Number(s); F020, F021, F022, F026, F027, and/or F028).	***** o-Anisidine (2-methoxyaniline) ***** p-Cresidine..... ***** 2,4-Dimethylaniline (2,4-xylydine) ***** 1,3-Phenylenediamine..... *****	90-04-0   120-71-8  95-68-1  108-45-2		0.010   0.010  0.010  0.010	0.66   0.66  0.66  0.66		
*	*	*	*	*	*	*		
K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of section 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis.	Aniline..... o-Anisidine (2-methoxyaniline) 4-Chloroaniline..... p-Cresidine..... 2,4-Dimethylaniline (2,4-xylydine) 1,2-Phenylenediamine.....	62-53-3 90-04-0 106-47-8 120-71-8 95-68-1 95-54-5		0.81 0.010 0.46 0.010 0.010 CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	14 0.66 16 0.66 0.66 CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN		

**RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
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FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
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	1,3- Phenylenediamine.....	108-45-2	0.010		0.66	
*	*	*	*	*	*	*

Footnotes to Treatment Standard Table 268.40

- 1 The waste descriptions provided in this table do not replace waste descriptions in 40 CFR Part 261. Descriptions of Treatment/ Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards
- 2 CAS means Chemical Abstract Services. When the waste code and/ or regulated constituents are described as a combination of a chemical with its salts and/ or esters, the CAS number is given for the parent compound only.
- 3 Concentration standards for wastewaters are expressed in mg/ L and are based on analysis of composite samples.
- 4 All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1- Technology Codes and Descriptions of Technology-Based Standards.
- 5 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration units operated in accordance with the technical requirements of 40 CFR part 264, Subpart O or 40 CFR part 265, Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

**UNIVERSAL TREATMENT STANDARDS**

amended by adding in alphabetical sequence the following entries under organic constituents:	268.48/ Universal Treatment Standards Table					
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**Universal Treatment Standards  
[Note: NA means not applicable]**

Regulated constituent common name	CAS <sup>1</sup> number	Wastewater standard Concentration in mg/L <sup>2</sup>	Nonwastewater standard Concentration in mg/kg <sup>3</sup> unless noted as "mg/L TCLP"
* * * *	*	*	*
o-Anisidine (2-methoxyaniline).....	90-04-0	0.010	0.66
* * * *	*	*	*
p-Cresidine.....	120-71-8	0.010	0.66
* * * *	*	*	*
2,4-Dimethylaniline (2,4-xylydine).....	95-68-1	0.010	0.66
* * * *	*	*	*
1,3-Phenylenediamine.....			
* * * *	*	*	*

Footnotes to Table UTS

RCRA REVISION CHECKLIST 206: Nonwastewaters from Dyes and Pigments  
(Cont'd)

FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	STATE ANALOG IS:			
			EQUIV- ALENT	LESS STRIN- GENT	MORE STRIN- GENT	BROADER IN SCOPE
1	CAS means Chemical Abstract Services. When the waste code and/ or regulated constituents are described as a combination of a chemical with its salts and/ or esters, the CAS number is given for the parent compound only.					
2	Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.					
3	Except for Metals (EP or TCLP) and Cyanides ( Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264, Subpart O, or Part 265, Subpart O, or substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.					